

STATE OF SOUTH CAROLINA

(Caption of Case)
In the Matter of:

Application of Duke Energy Carolinas,
LLC for Approval of Energy Efficiency
Plan Including an Energy Efficiency Rider
and Portfolio of Energy Efficiency Programs

BEFORE THE
PUBLIC SERVICE COMMISSION
OF SOUTH CAROLINA

COVER SHEET

DOCKET

NUMBER: 2007 - 358 - E

(Please type or print)

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DOCKETING INFORMATION (Check all that apply)

☐ Emergency Relief demanded in petition ☐ Request for item to be placed on Commission's Agenda expeditiously

☐ Other: _____

INDUSTRY (Check one)	NATURE OF ACTION (Check all that apply)			
<input checked="" type="checkbox"/> Electric	<input type="checkbox"/> Affidavit	<input type="checkbox"/> Letter	<input type="checkbox"/> Request	
<input type="checkbox"/> Electric/Gas	<input type="checkbox"/> Agreement	<input type="checkbox"/> Memorandum	<input type="checkbox"/> Request for Certification	
<input type="checkbox"/> Electric/Telecommunications	<input type="checkbox"/> Answer	<input type="checkbox"/> Motion	<input type="checkbox"/> Request for Investigation	
<input type="checkbox"/> Electric/Water	<input type="checkbox"/> Appellate Review	<input type="checkbox"/> Objection	<input type="checkbox"/> Resale Agreement	
<input type="checkbox"/> Electric/Water/Telecom.	<input type="checkbox"/> Application	<input type="checkbox"/> Petition	<input type="checkbox"/> Resale Amendment	
<input type="checkbox"/> Electric/Water/Sewer	<input type="checkbox"/> Brief	<input type="checkbox"/> Petition for Reconsideration	<input type="checkbox"/> Reservation Letter	
<input type="checkbox"/> Gas	<input type="checkbox"/> Certificate	<input type="checkbox"/> Petition for Rulemaking	<input type="checkbox"/> Response	
<input type="checkbox"/> Railroad	<input type="checkbox"/> Comments	<input type="checkbox"/> Petition for Rule to Show Cause	<input type="checkbox"/> Response to Discovery	
<input type="checkbox"/> Sewer	<input type="checkbox"/> Complaint	<input type="checkbox"/> Petition to Intervene	<input type="checkbox"/> Return to Petition	
<input type="checkbox"/> Telecommunications	<input type="checkbox"/> Consent Order	<input type="checkbox"/> Petition to Intervene Out of Time	<input type="checkbox"/> Stipulation	
<input type="checkbox"/> Transportation	<input type="checkbox"/> Discovery	<input checked="" type="checkbox"/> Prefiled Testimony	<input type="checkbox"/> Subpoena	
<input type="checkbox"/> Water	<input type="checkbox"/> Exhibit	<input type="checkbox"/> Promotion	<input type="checkbox"/> Tariff	
<input type="checkbox"/> Water/Sewer	<input type="checkbox"/> Expedited Consideration	<input type="checkbox"/> Proposed Order	<input type="checkbox"/> Other:	
<input type="checkbox"/> Administrative Matter	<input type="checkbox"/> Interconnection Agreement	<input type="checkbox"/> Protest		
<input type="checkbox"/> Other:	<input type="checkbox"/> Interconnection Amendment	<input type="checkbox"/> Publisher's Affidavit		
	<input type="checkbox"/> Late-Filed Exhibit	<input type="checkbox"/> Report		

STATE OF SOUTH CAROLINA

In the Matter of:

Application of Duke Energy
Carolinas, LLC for Approval of
Energy Efficiency Plan Including an
Energy Efficiency Rider and Portfolio
of Energy Efficiency Programs

) TESTIMONY OF JAMES B. ATKINS
) ON BEHALF OF ENVIRONMENTAL
) DEFENSE, THE SOUTH CAROLINA
) COASTAL CONSERVATION
) LEAGUE, SOUTHERN ALLIANCE
) FOR CLEAN ENERGY AND THE
) SOUTHERN ENVIRONMENTAL LAW
) CENTER
)
)

BEFORE THE PUBLIC SERVICE COMMISSION

DOCKET NO. 2007-358-E

1 **I. INTRODUCTION AND PURPOSE**

2

3 **Q. PLEASE STATE YOUR NAME, ADDRESS AND AFFILIATION.**

4 A. My name is James B. Atkins, and I reside at 157 Preserve Lane,
5 Columbia, South Carolina. I am the President of Regulatory Heuristics, LLC, a
6 single-member consulting firm specializing in energy and environmental policy
7 issues.

8 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS CASE?**

9 A. I am testifying on behalf of Environmental Defense (“ED”), the South
10 Carolina Coastal Conservation League (“CCL”), Southern Alliance for Clean
11 Energy (“SACE”) and the Southern Environmental Law Center (“SELC”).
12 These nonprofit, nonpartisan organizations promote responsible energy choices
13 that solve global warming problems and ensure clean, safe and healthy
14 communities throughout the Southeast. It should be noted that I am not being
15 compensated by ED, CCL, SACE, SELC or any other entity for my work in this
16 matter. I am testifying because of the importance of this matter to improve and
17 protect our environment, to promote lowering of ratepayer bills compared to
18 future generation builds, and to assist in the development of a “progressive and
19 responsible” record and outcome in this Docket.

20 **Q. PLEASE STATE YOUR EDUCATIONAL BACKGROUND.**

21 A. I received a Bachelors of Science degree in Marine Science from the
22 University of South Carolina in 1976, a Masters of Science degree in
23 Environmental Systems Engineering from Clemson University in 1981, and a
24 Ph.D. in Marine Science from the University of South Carolina in 1998. My
25 dissertation focused on the optimal sizing of offstream reservoirs which are used
26 as an alternative water supply during drought conditions. This research included
27 demand side management (“DSM”) routines to minimize on-peak pumping costs
28 for the water utility. I am also a certified mediator through the S. C. Council for
29 Conflict Resolution.

30

1 **Q. PLEASE BRIEFLY DESCRIBE YOUR RELEVANT EXPERIENCE.**

2 A. Since 2004, I have worked under contract with the Institute of Public
3 Utilities at Michigan State University and the Critical Infrastructure Protection
4 Program at George Mason University School of Law. This work has focused on
5 critical infrastructure protection policies in the public utility sector, analysis of
6 cost recovery in the electricity industry following the 2004-2005 hurricanes in the
7 Gulf Coast, and the evaluation of State Energy Emergency Response Plans.

8 From 2000 to 2004, I represented the 2nd Congressional District as a
9 member of the Public Service Commission of South Carolina (“Commission”)
10 and was a member, and past Vice Chair, of the Energy Resources and
11 Environment Committee of the National Association of Regulatory Utility
12 Commissioners (“NARUC”). I was also a member of the NARUC Board of
13 Directors and served as Chair of the Subcommittee on Administration which
14 oversaw NARUC’s research and educational activities. I also represented
15 NARUC as the Eastern U.S. State Regulatory representative on the Planning
16 Committee of the North American Electric Reliability Corporation, and at the side
17 conference on International Clean Energy Collaboration at the 2002 UN Framework
18 Convention on Climate Change, COP-8, in New Delhi, India.

19 Prior to my service on the Commission, I was a research associate
20 professor at the Earth Sciences & Resources Institute at the University of South
21 Carolina where my research interests focused on drinking water protection,
22 energy and water optimization modeling, environmental geographic information
23 system mapping and environmental mediation. I was also a member of the
24 extension faculty at North Carolina State University, where I worked on animal
25 waste management issues, agricultural non-point source pollution, and on-farm
26 energy efficiency. I have also worked as an engineer and scientist with a number
27 of federal and state environmental agencies in South Carolina and North Carolina.
28 Much of my work focused on water resources management issues including
29 reservoir modeling regarding Federal Energy Regulatory Commission relicensing
30 of hydropower facilities.

1 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
2 **PROCEEDING?**

3 A. The purpose of my testimony today is to support the position of ED, CCL,
4 SACE and SELC in this proceeding, and to offer my opinion and concerns over
5 the Duke Energy Carolinas (“Duke”) “save-a-watt” proposal and the methodology
6 to calculate the Rider EE (SC). In particular, my testimony will (1) examine the
7 inadequacy of the proposed energy efficiency (“EE”) programs compared to
8 Duke’s historical DSM efforts, (2) offer evidence why Duke’s proposed Rider EE
9 is inconsistent with long-established regulatory principles used by the
10 Commission and therefore should be denied, and lastly, (3) discuss Duke’s save-
11 a-watt proposal in light of the South Carolina Energy Conservation and Efficiency
12 Act of 1992, S.C. Code §58-37-20.

13 **Q. DO YOU HAVE A SUMMARY OF YOUR RECOMMENDATIONS?**

14 A. I do. Regarding the adequacy of Duke’s save-a-watt proposal, I can only
15 conclude that the expected energy savings and capacity reductions of Duke’s
16 proposed save-a-watt program pale in comparison with Duke’s Commission-
17 approved load management and DSM efforts in the past. If approved by this
18 Commission, implementation of the proposed save-a-watt program will not result
19 in Duke's load management program measuring up to what it previously testified
20 would be the “**most comprehensive of any utility in this country**” (emphasis
21 added) in Docket No. 85-78-E .

22 I have a very high opinion of the capabilities of Duke in almost all aspects
23 of the utility business. In fact, it is my opinion that Duke is capable of
24 accomplishing much more in regard to DSM and energy efficiency programs than
25 the company would achieve with the save-a-watt proposal, consistent with Mr.
26 Rogers’ leadership in the National Action Plan for Energy Efficiency. Because of
27 the importance of this matter, the Commission should not accept anything less
28 than Duke’s full commitment to this effort.

29 Regarding the Commission’s action on this matter, I would strongly
30 recommend that Duke’s application for the save-a-watt program be denied with
31 prejudice. I would also recommend that the Commission order Duke to submit an

1 application to the Commission this year to re-examine (1) its general rates
2 contained in Order No. 91-1022, and (2) the rates and cost of capital associated
3 with Docket No. 1995-1192-E and as approved in Order 2007-591 should Duke
4 insist on using Docket No. 1995-1192-E as its under-pinning to calculate avoided
5 capacity and energy costs. This recommendation is based on the fact that Duke is
6 seeking Commission approval to implement a rate-recovery mechanism, the EE
7 Rider (SC), which will be applied to all South Carolina Rate Schedules.
8 Therefore, in making its decision, the Commission should apply the principles
9 contained in its prior ratemaking decisions, and in relevant court decisions. It
10 would be inappropriate for the Commission to approve a rate-recovery
11 mechanism in 2008 based on business and capital market conditions in 1995. To
12 do so would prejudice other companies appearing before the Commission in rate
13 case matters.

14 Most importantly, approval of the current proposal is not in the public
15 interest since Duke has escalated the recovery of DSM program costs through the
16 use of an artificially high cost of capital. Consistent with state law and with the
17 long held practice and precedent of the Commission concerning rate making, the
18 Commission cannot proceed with an evaluation of any future save-a-watt program
19 and/or EE Rider (SC) until such time that the public and other interested parties
20 are allowed the opportunity for a hearing to determine the correct cost of capital,
21 based on current business and capital market conditions, to be used in DSM and
22 energy efficiency programs proposed by Duke.

23 Lastly, regarding Duke's proposed cost recovery mechanism, I support the
24 conclusions and testimony submitted by the other witnesses on behalf of ED,
25 CCL, SACE, and SELC that the cost recovery plan is regressive, not in the
26 ratepayers' interest, and inconsistent with generally accepted practices for DSM
27 and energy efficiency cost recovery approved by other Commissions. I also
28 believe it is patently unfair for Duke to attempt to recover excessive future
29 avoided capacity and energy costs to promote DSM and energy efficiency
30 practices which have no linkage to actual program costs or erosion of revenues
31 based on an amortization of rate base found in Duke's current rate Order. If DSM

1 and energy efficiency practices cost less than the construction, financing and
2 operation of generation, transmission and distribution systems, then the ratepayer
3 should receive that benefit. Otherwise, the cost recovery mechanism would not be
4 consistent with generally accepted least cost planning and IRP concepts contained
5 in Order No. 98-502 or with S.C. Code §58-37-20.

6 The Commission has already approved a cost recovery mechanism in
7 Order No. 91-1022 which allows Duke to recover DSM program costs and in fact,
8 to earn a return on those program costs, and to also recover lost revenues resulting
9 from lost KWH sales due to DSM conservation programs. Despite this generous
10 cost recovery mechanism approved and granted by the Commission--which was
11 consistent with S.C. Code §58-37-20--Duke has never taken advantage of this
12 opportunity because Duke has failed to request recovery of DSM costs in a
13 general rate case.

14 **II. HISTORICAL DSM EFFORTS COMPARED TO THE**
15 **SAVE-A-WATT PROGRAM**

16 **Q. WHAT DSM EFFORTS HAS DUKE PROPOSED IN THE PAST?**

17 A. As referenced by a number of Duke's witnesses in this docket, Duke has a
18 long history of running DSM programs. In 1974, as a result of the mid-1970's
19 financial crisis, Duke realized that its forecast demand would outpace its ability to
20 build facilities. Consequently, Duke launched a massive load management
21 program which was the centerpiece of Duke's plan to meet its public service
22 responsibility (Order No. 85-841, p. 11). Twenty years ago, load management and
23 DSM efforts were an integral part of Duke's efforts to meet future power
24 demands and were conducted in a manner **to minimize costs and rate impacts to**
25 **its customers**. Specifically, load management and DSM efforts were major
26 components of Duke's rate cases in Docket No. 82-50-E (Order No. 83-92),
27 Docket No. 85-78-E (Order No. 85-841), Docket No. 86-188-E (Order No. 86-
28 1116) and Docket No. 91-216-E (Order No. 91-1022) which is Duke's current and
29 most recent base rate Order.

30 A direct linkage also exists between the Commission's rate Orders for
31 Duke and Duke's Integrated Resource Planning ("IRP") requirements. Until 1998,

1 load management and DSM activities were closely regulated by the Commission
2 as set forth in Order No. 93-845. However, the public transparency and rigor of
3 the IRP process was significantly constrained by Order No. 98-502 which limited
4 (1) the amount and types of information required of utilities in IRP filings, and (2)
5 the ability of the public and other interested parties to “reasonably understand” the
6 assumptions and information contained in the IRP filing.

7 **Q. PLEASE BRIEFLY REVIEW DUKE’S DSM EFFORTS APPROVED BY**
8 **THE COMMISSION IN PAST RATE CASES.**

9 Duke’s commitment to load management and DSM efforts can be found
10 on pp. 8-10 of Order No. 83-92 where Duke Witness Lee testified as follows:

11
12 We expect that by 1996 the conventional load management
13 efforts will reduce the peak demand by over 5,700
14 megawatts, with an additional 553 megawatts from the
15 interruptible load management programs. This will total
16 over 6,300 megawatts, which with a normally planned
17 reserve of 20 percent will avoid 7,600 megawatts of new
18 construction by 1996. This is equivalent to six of the largest
19 generating sources and our customers **will forever avoid**
20 **having to pay to service the capital represented by that**
21 **generation.**

22 (Emphasis added.)

23 Load management and DSM efforts included promotion of energy
24 efficient building structures and appliances, use of residential conservation
25 rates, use of interruptible rates for large customers, control by the
26 Company (with customers' consent) of residential water heaters and air
27 conditioners during peak demand periods, time-of-day pricing, utilization
28 of emergency generators, and a weatherization program for the needy.
29 Projections were to weatherize 2,600 homes in South Carolina by the end
30 of 1983. To meet its public service responsibility of supplying electricity
31 at the **lowest possible cost**, the Commission ordered Duke to

1 “aggressively pursue its Load Management Program so that it can meet
2 the goals set and provide adequate and sufficient service in the future.”

3 Duke continued to emphasize the importance of load management
4 and DSM programs during Docket No. 85-78-E, and on p. 13 of Order No.
5 85-841, Duke Witness Lee’s testimony was that “**Duke's load**
6 **management program is the most comprehensive of any utility in this**
7 **country.**” (Emphasis added). Further, a total of 37,000 homes had been
8 weatherized in Duke’ service area by 1985 (Order No. 85-841, p. 13).

9 Likewise, Duke’s load management and DSM efforts were on target for
10 the Year 2000, as reported on pp.10-12 of Order No. 86-1116, avoiding
11 the construction and debt service on the equivalent of two units the size of
12 Catawba [Nuclear] One and Two.

13 **Q. HOW DOES THIS COMPARE TO DUKE’S PROPOSAL IN THIS CASE?**

14 A. Duke is proposing to replace its current 700 MW program with 1860 MW
15 of capacity reductions over the next four years. See Duke’s Application at 3. In
16 addition, Duke proposes to weatherize up to 5,000 (low-income) homes in its
17 service area. Please compare these amounts with Duke’s previously mentioned
18 load management and DSM efforts of 7,600 MW and a total of 37,000 homes in
19 Duke’ service area by 1985.

20 **Q. DO YOU HAVE AN OPINION REGARDING THE ROBUSTNESS AND**
21 **ADEQUACY OF DUKE’S PROPOSED SAVE-A-WATT PROGRAM?**

22 A. Yes I do. Consistent with the testimony presented by ED-CCL-SACE-
23 SELC witnesses Gilligan and Nichols in this case, I can only conclude that the
24 expected benefits of Duke’s proposed save-a-watt program pale in comparison
25 with Duke’s Commission-approved load management and DSM efforts in the
26 past. Duke CEO Rogers has testified that his company’s approach aspires “to
27 create the most energy-efficient economy in the world” and “to substantially ‘de-
28 carbonize’ the energy supply.” Testimony of James E. Rogers for Duke Energy
29 Carolinas (Docket No. 2007-358-E) at 4-5. The modest energy savings included
30 in Duke’s proposal hardly appear likely to achieve such aspirations. Nor do the

1 capacity savings proposed by Duke appear likely to measure up to Duke's prior
2 load management program, approved by the Commission in Docket No. 85-78-E.

3 I have a very high opinion of the capabilities of Duke in almost all aspects
4 of the utility business. In fact, it is my opinion that they are capable of
5 accomplishing much more in regard to DSM and energy efficiency programs
6 compared with the save-a-watt proposal, consistent with Mr. Rogers' leadership
7 in the National Action Plan for Energy Efficiency. Because of the importance of
8 this matter, the Commission should not accept anything less than Duke's full
9 commitment to this effort.

10
11 **III. REGULATORY PRINCIPLES CONCERNING THE**
12 **COMMISSION'S EVALUATION OF EE RIDER (SC)**
13

14 **Q. WHAT ARE THE REGULATORY PRINCIPLES WHICH THE**
15 **COMMISSION HAS USED IN THE PAST CONCERNING RATE-**
16 **MAKING?**

17 A. The guiding principles used by the Commission may be summarized as
18 follows:

- 19 • A public utility is entitled to such rates as will allow it to earn a return on
20 the value of the property which it employs for the convenience of the
21 public, equal to that generally being made at the same time and in the
22 same general part of the country on investments in other business
23 undertakings which are attended by corresponding risks and uncertainties;
24 but it has no constitutional right to profits such as are realized or
25 anticipated in highly profitable enterprises or speculative ventures.
26
- 27 • The return should be reasonably sufficient to assure confidence in the
28 financial soundness of the utility and should be adequate, under efficient
29 and economical management, to maintain and support its credit and enable
30 it to raise the money necessary for the proper discharge of its public
31 duties. A rate of return may be reasonable at one time and become too
32 high or too low by changes affecting the opportunities for investment, the
33 money market and business conditions generally.¹

¹ These standards are set forth in Federal Power Commission v. Hope Natural Gas Company, 320 U.S. 591, 602-03 (1944) and Bluefield Water Works and Improvement Co. v. Public Service Commission of West Virginia, 262 U.S. 679, 692-73 (1923).

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Q. DID THE COMMISSION USE THESE PRINCIPLES IN DUKE’S 1991 RATE CASE?

A. Yes. The Commission used these same regulatory principles in Docket No. 91-216-E (Order No. 91-1022) which is Duke’s current and most recent base rate Order. Please refer to p.65 of Order No. 91-1022. This Order remains in effect today.

Q. HAS THE COMMISSION USED AND UPHELD THESE PRINCIPLES IN A MORE CURRENT RATE CASE?

A. Yes. The Commission used these same regulatory principles in Docket No. 2004-178-1-216-E (Order No. 2005-2) which is South Carolina Electric and Gas’s (“SCE&G”) current and most recent base rate Order. Please refer to pp. 83-85 of Order No. 2005-2.

In addition, the Commission added additional guidance in Order No. 2005-2 concerning the evaluation of evidence including:

- 1) The rate of return should be sufficient to allow SCE&G the opportunity to earn a return equal to firms facing similar risks;
- 2) **The rate of return should be adequate to assure investors of the financial soundness of the utility and to support the utility’s credit and ability to raise capital needed for on-going utility operations at reasonable cost;**
- 3) The rate of return should be determined with due regard for the **present business and capital market conditions facing the utility;**
- 4) The rate of return is not formula-based, but requires an informed expert judgment by the Commission balancing the interests of shareholders and customers.

(Emphasis added.)

Q. DOES DUKE’S EE RIDER (SC) CONSITUTE RATE-MAKING?

1 A. Yes. On p. 12 of Duke's Application, Duke is seeking Commission
2 approval to implement a rate-recovery mechanism, the EE Rider (SC), which will
3 be applied to all South Carolina Rate Schedules. As such, the principles discussed
4 above must apply.

5 **Q. IN YOUR OPINION, ARE DUKE'S SAVE-A-WATT PROPOSAL AND EE**
6 **RIDER (SC) CONSISTENT WITH THE COMMISSION'S REGULATORY**
7 **PRINCIPLES AS APPLIED IN PRIOR ORDERS? IF NOT, THEN HOW**
8 **ARE THEY INCONSISTENT?**

9 A. No. These proposals are not consistent with the Commission's precedent
10 and regulatory principles because they utilize cost of capital and rate of return
11 values which do not represent the **present business and capital market**
12 **conditions facing Duke.** The cost of capital and rate of return are significantly
13 inflated compared to 2008 financial data.

14 **Q. WHAT COST OF CAPITAL HAS DUKE PROPOSED TO USE IN THE**
15 **CASE?**

16 A. In Duke's Application to the Commission and in Duke Witness Stevie's
17 testimony, Duke proposed to use the discount rate from Duke's last rate
18 proceeding in 1991 to calculate the avoided capacity and energy costs in the EE
19 Rider (SC). Duke's rate of return approved by the Commission in Order No. 91-
20 1022 was 12.25 percent with an overall rate of return based on the weighted cost
21 of capital equal to 10.35 percent.

22 However, in conflict with Dr. Stevie's testimony, Duke modified the
23 calculation of avoided capital and energy costs in Duke Witness Farmer's
24 testimony to include the rate of return from Duke's 2007 Avoided Cost Filing in
25 Docket No. 1995-1192-E and as approved in Order 2007-591. As discussed on p.
26 13 and p. 16 of Mr. Farmer's testimony, Duke proposes to calculate the avoided
27 capacity and energy costs based on (1) the rate of return based on evidence from
28 Docket No. 1995-1192-E, and a (2) the pre-tax weighted cost of capital based on
29 the capital structure, cost of long-term debt, cost of common equity and effective
30 tax rate based on evidence in Docket No. 1995-1192-E. Duke used a 13.68

1 percent pre-tax weighted cost of capital in calculating the avoided cost of capacity
2 and energy (Duke response to Wal-Mart Data Request 1-6).

3 **Q. HOW DOES A 13.86 PERCENT PRE-TAX WEIGHTED COST OF**
4 **CAPITAL COMPARE WITH RECENT COMMISSION RATE**
5 **APPROVALS?**

6 A. A 13.68 percent pre-tax weighted cost of capital is inflated above present
7 business and capital market conditions. Specifically, in the 2005 SCE&G rate
8 case (Docket No. 2004-178-1-216-E, Order No. 2005-2), the Commission
9 approved a weighted cost of capital of 10.70 percent and an overall rate of return
10 of 8.64 percent. Any person following market conditions over the last two years
11 knows that the cost of capital has declined since 2005.

12 **Q. HOW DOES A 13.86 PERCENT WEIGHTED COST OF CAPITAL**
13 **COMPARE WITH RECENT FINANCIAL FILINGS BY DUKE?**

14 A. On May 23, 2007, Duke filed its quarterly financial statement with the
15 Commission for the 12 months ending March 31, 2007. I would respectfully
16 request that the Commission take judicial notice of this filing. Based on a pro-
17 forma adjustment, Duke reported a weighted cost of capital of 8.67 percent, and
18 an overall (adjusted) rate of return of 8.60 percent. Of note, this was based on an
19 original base rate of approximately \$2.72 Billion compared with a rate base of
20 \$1.835 Billion approved by the Commission in Duke's current (1991) rate order
21 (Order No. 91-1022. **It is important to note that Duke failed to provide any**
22 **calculation of the tax-adjusted cost of capital in this docket for comparison**
23 **with existing Commission approved cost of capital and rates of return**
24 **contained in the Commission's rate Orders.**

25 **Q. IN YOUR OPINION, WHAT EFFECT DID DUKE'S CALCULATION OF**
26 **AVOIDED CAPACITY AND ENERGY COSTS HAVE ON THE AMOUNT**
27 **OF THE PER KWH CHARGE ON THE EE RIDER (SC)?**

28 A. Based on the information provided from Duke, it is my opinion that the
29 calculation improperly increased the per-kWh charge on the EE Rider (SC). By
30 using the 13.68 percent pre-tax weighted cost of capital contained in Docket No.
31 1995-1192-E compared with the 10.70 percent approved by the Commission in

1 Order No. 91-1022, Duke improved its cost recovery by 298 basis points. In
2 addition, by using a cost of capital from 1995, instead of a cost of capital based on
3 current business and financial conditions, Duke effectively inflated its cost
4 recovery to the detriment of other companies and the ratepayers. **However, to**
5 **emphasize the point again, Duke failed to provide any calculation of the tax-**
6 **adjusted cost of capital in this docket for comparison with existing**
7 **Commission approved cost of capital and rates of return contained in the**
8 **Commission's rate Orders.**

9 **Q. IN YOUR OPINION, DOES THE USE OF A DIFFERENT COST OF**
10 **CAPITAL TO CALCULATE THE AVOIDED CAPACITY AND ENERGY**
11 **COSTS CREATE ANY ADDITIONAL PROBLEMS?**

12 A. Yes. Duke Witness Stevie apparently used the cost of capital from the
13 1991 rate case (10.70 percent) to determine the cost effectiveness of the portfolio
14 of DSM programs to be offered by Duke under the save-a-watt proposal. The
15 cost-effectiveness of those measures would be different had the higher cost of
16 capital (13.68 percent) used by Mr. Farmer been utilized. Having said this, it is
17 unclear in the testimony which cost of capital was actually used by Dr. Stevie to
18 compute program cost-effectiveness.

19 **Q. DO YOU HAVE A RECOMMENDATION FOR THE COMMISSION**
20 **REGARDING THE SAVE-A-WATT PROGRAM AND THE EE RIDER**
21 **(SC)?**

22 A. Yes. I would strongly recommend that the Commission reject Duke's
23 application for the save-a-watt program. I would also recommend that the
24 Commission require Duke to submit an application to the Commission this year to
25 re-examine (1) its general rates contained in Order No. 91-1022, and (2) the rates
26 and cost of capital associated with Docket No. 1995-1192-E and as approved in
27 Order 2007-591 should Duke insist on using Docket No. 1995-1192-E as its
28 under-pinning to calculate avoided capacity and energy costs.

29 **Q. PLEASE STATE YOUR REASONS FOR MAKING THIS**
30 **RECOMMENDATION.**

1 A. As stated above, Duke is seeking Commission approval to implement a
2 rate-recovery mechanism, the EE Rider (SC), which will be applied to all South
3 Carolina Rate Schedules, based on outdated cost of capital data. It would be
4 inappropriate for the Commission to approve a rate-recovery mechanism in 2008
5 based on business and capital market conditions in 1995. To do so would be
6 inconsistent with the long held practice and precedent of the Commission
7 concerning rate making, and would prejudice other companies appearing before
8 the Commission in rate case matters. Most importantly, approval of the current
9 proposal is not in the public interest since Duke has escalated the recovery of
10 DSM program costs through the use of an artificially high cost of capital. The
11 Commission should not proceed with an evaluation of the “save-a-watt” program
12 and/or EE Rider (SC) until such time that the public and other interested parties
13 are allowed the opportunity for a hearing to determine the correct cost of capital,
14 based on current business and capital market conditions, to be used in DSM and
15 energy efficiency programs proposed by Duke.

16 **Q. PLEASE BRIEFLY DESCRIBE THE COMMISSION’S ACTION ON DSM**
17 **PROGRAM COST RECOVERY IN DUKE’S MOST RECENT AND**
18 **CURRENT GENERAL RATE CASE?**

19 A. As stated above, Order No. 91-1022 (Docket No. 91-216-E) is Duke’s
20 most recent base rate Order and remains in effect as of this hearing. On pp. 25-26
21 of that Order, the Commission set forth a cost recovery mechanism for Duke’s
22 DSM programs whereby Duke would:

23
24 *credit* the deferred account for found revenues to the extent
25 **lost revenues resulting from lost KWH sales due to**
26 **DSM conservation programs** are included in the deferred
27 account. A **return on the deferred balance** will be
28 computed monthly and added to the balance. **The rate of**
29 **return will equal the net of tax rate of return approved**
30 **by the Commission in this Docket or subsequent rate**
31 **cases.** The Stipulation also provides that if it is determined

1 that the expenditures were prudent for used and useful
2 DSM programs, the balance in the deferred account will be
3 reflected in the Company's **next rate case** or appropriate
4 IRP Docket... .

5 (Emphasis added.)

6 **Q. WHAT IS YOUR KNOWLEDGE OF THE CURRENT BALANCE OF THE**
7 **ABOVE DEFERED ACCOUNT?**

8 A. As stated on p. 15 of Duke's Application, as of June 30, 2007, the balance
9 of the deferred account was (\$86,864,237). This balance apparently reflects
10 Duke's \$18 Million in DSM and energy efficiency spending referenced on p. 20
11 of Duke Witness Farmer's testimony. This sizable balance apparently is the result
12 of two factors. First, Duke has not filed a rate case with the Commission since
13 1991 to recover the deferred balance, and second, the IRP Docket process was
14 altered as a result of S.C. Code §58-37-40 and Order No. 98-502 referenced in
15 Section I of my testimony. Therefore, Duke has not made an effort to address this
16 deferred balance.

17 **Q. ON PAGE 15 OF DUKE'S APPLICATION, THE COMPANY STATES**
18 **THAT THE COMMISSION REAFFIRMED THE DSM COST**
19 **RECOVERY PROCESS REFERENCED ABOVE IN ORDER NO. 93-8. DO**
20 **YOU HAVE ANY ADDITIONAL INFORMATION CONCERNING THIS**
21 **ORDER?**

22 A. Yes. Order 93-8 references a Stipulation between Duke and the
23 Commission Staff dated July 27, 1992, which addressed DSM cost recovery. On
24 p. 37, the Order states:

25
26 The Stipulation states that: The deferred account process as
27 proposed within Duke's cost recovery plan with carrying
28 cost coverage and subsequent cost of service amortization
29 is an appropriate accounting mechanism to provide for
30 recovery of DSM costs identified through the IRP process.

31 Nothing in the cost recovery plan limits the Commission

1 Staff's audit authority to review whether all costs deferred
2 were reasonable and consistent with acceptable costs for
3 inclusion in cost of service.

4 In addition, the Order also discusses a shared savings mechanism. The
5 parties agreed that the concept of shared savings is consistent with S.C. Code §58-
6 37-20, an energy bill which the legislature passed in 1992 dealing with
7 conservation and energy efficiency.

8 **Q. WHY IS THIS RELEVANT TO THE ISSUES BEFORE THE**
9 **COMMISSION IN THIS DOCKET?**

10 A. As stated on pp. 14-15 of Duke's Application, Duke is requesting
11 Commission approval of the recovery mechanism proposed as part of the save-a-
12 watt program in lieu of the current DSM cost recovery plan approved in Order
13 No. 91-1022 and as reaffirmed in Order 93-8. Duke is making this request
14 because it believes that the proposed cost recovery plan is superior to the existing
15 method of cost recovery approved in Order No. 91-1022, and is more consistent
16 with S.C. Code §58-37-20.

17 The Commission went to great lengths to hear evidence presented by
18 Duke in Docket No. 91-216-E concerning whether a shared savings mechanism
19 was consistent with S.C. Code §58-37-20, and agreed with a stipulation that it was
20 consistent. Apparently, Duke never argued that the cost recovery plan was
21 inconsistent with S.C. Code §58-37-20 and agreed to a stipulation that the cost
22 recovery was consistent with S.C. Code §58-37-20. In fact, in Order 91-1022, the
23 Commission has already approved a cost recovery mechanism for Duke which is
24 consistent with S.C. Code §58-37-20.

25 **Q. WHAT IS YOUR OPINION OF THE COST RECOVERY PLAN**
26 **PROPOSED BY DUKE IN THIS DOCKET?**

27 A. I support the conclusions and testimony of the other ED-CCL-SACE-
28 SELC witnesses that the cost recovery plan is regressive, not in the ratepayers'
29 interest, and is inconsistent with generally accepted practices for DSM and energy
30 efficiency cost recovery approved by other Commissions. I also believe it is
31 patently unfair to attempt to recover excessive future avoided capacity and energy

1 costs to promote DSM and energy efficiency practices which have no linkage to
2 actual program costs or erosion of revenues based on an amortization of rate base
3 found in Duke's current rate Order. If DSM and energy efficiency practices cost a
4 lesser amount than the construction, financing and operation of generation,
5 transmission and distribution systems, then the ratepayer should receive that
6 benefit. To do otherwise would not be consistent with generally accepted least
7 cost planning and IRP concepts contained in Order No. 98-502 or with S.C. Code
8 §58-37-20.

9 **Q. BUT DOES DUKE NOT LOSE POTENTIAL REVENUES FROM THE**
10 **EFFECTIVE IMPLEMENTATION OF DSM AND ENERGY**
11 **EFFICIENCY PROGRAMS? WHAT IS THEIR INCENTIVE TO**
12 **PARTICIPATE?**

13 A. Yes. However, the Commission has already approved a cost recovery
14 mechanism in Order No. 91-1022 which allows Duke to recover DSM program
15 costs and in fact, to earn a return on those program costs, and important to your
16 question, to recover **lost revenues resulting from lost KWH sales due to DSM**
17 **conservation programs.**

18 Despite this generous cost recovery mechanism approved and granted by
19 the Commission which was consistent with S.C. Code §58-37-20, Duke has never
20 taken advantage of this opportunity because Duke has failed to request recovery
21 of DSM costs in a general rate case.

22 **Q. IS IT YOUR CONCLUSION THAT DUKE DOES NOT NEED TO**
23 **DEVELOP A NEW COST RECOVERY PROGRAM TO DEVELOP A**
24 **NEW DSM AND ENERGY EFFICIENCY PROGRAM?**

25 A. Yes. As stated earlier in my testimony, I would recommend that the
26 Commission order Duke to submit an application to the Commission this year to
27 re-examine its general rates contained in Order No. 91-1022 and that the current
28 cost recovery plan approved by the Commission, along with progressive cost
29 recovery plans approved by other State Commissions, be considered for the
30 recovery of future DSM programs and energy efficiency programs at that time.

31 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

1 A. Yes, it does.

CERTIFICATE OF SERVICE

I hereby certify that the following persons have been served with the Southern Environmental Law Center (SELCE), Southern Alliance for Clean Energy (SACE), the South Carolina Coastal Conservation League (CCL), and Environmental Defense (ED) pre-filed expert witness testimony of James B. Atkins:

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This 17th day of January, 2008.

S/Kate Double
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